Biologists have exciting and rewarding careers in areas such as medicine, biotechnology, ecological conservation, and environmental management. Biologists study living things to understand how they function, survive, and evolve. They may study bacteria and viruses that threaten human health, and/or larger organisms such as red-spotted newts or brown bears. Whatever the scale, biological research increases our understanding of health and wellness and the threats to our environment.

Biology majors at Pitt-Bradford take courses in Anatomy and Physiology, Cell & Molecular Biology, Ecology and Evolution, Genetics, Chemistry, Biodiversity and Physics. Students learn how life works by asking questions, making observations, and evaluating evidence. Besides lectures, biology majors take classes that include hands-on activities in the laboratory and outdoors.

**Required Skills:**
- Ability to Work Independently
- Analytical and Quantitative Skills
- Knowledge of Biology Theory
- Innovative talent
- Ability to Operate Scientific Equipment
- Problem Solving Techniques
- Proficiency in Written Communication
- Research Capabilities
- Ability to Work in Teams

**Possible Employers:**
- Medical Corporations
- Device Companies
- Veterinarian
- Engineering Firms
- Agricultural Chemical Companies
- Biological Testing Laboratories
- Business and Industry
- Pharmaceutical Companies
- State and Federal Government
- Colleges and Universities

**PROFESSIONAL ORGANIZATIONS:**
- The American Society for Cell Biology [www.ascb.org](http://www.ascb.org)
- The American Institute of Biological Sciences [www.aibs.org](http://www.aibs.org)
- The Company of Biologists Limited [www.biologists.com](http://www.biologists.com)
- International Biometric Society [www.tibs.org](http://www.tibs.org)

**FIND OUT MORE ABOUT CAREERS IN CHEMISTRY AT:**
- Careers in Biological Science [www.aibs.org](http://www.aibs.org)
- Science Careers Web [www.sciencecareeerweb.net](http://www.sciencecareeerweb.net)
- Center for Health Careers [www.chc.hcwp.org/occubull.htm](http://www.chc.hcwp.org/occubull.htm)
- Career Services [www.upb.pitt.edu/career.aspx](http://www.upb.pitt.edu/career.aspx)
Biology (BS) – Curriculum Guide

GENERAL EDUCATION REQUIREMENTS

COMPETENCIES
(Minimum grade of C- required in all competencies)
☐ FS 0102 Freshman Seminar
   (if transferring in fewer than 18 credits)

Writing
☐ ENG 0101 English Composition I
☐ ENG 0102 English Composition II

Mathematics
☐* MATH 0098 College Algebra II or Higher (see major)

THE HUMAN EXPERIENCE
☐ Students are required to complete two courses designated
   as “Global”

ARTS & LETTERS (ONE course MUST be literature;
   ONE course MUST be a creative, fine or performing Arts course)
☐ Literature
☐ Arts
☐ Literature, Arts, Language

BEHAVIORAL, ECONOMIC, & POLITICAL SCIENCES
(Two different categories must be represented)
☐
☐

HISTORY, CULTURES, & PHILOSOPHICAL INQUIRY
(ONE course MUST be History, and ONE course must be Cultures
or Philosophical Inquiry)
☐ HIST
☐

PHYSICAL, LIFE, & COMPUTATIONAL SCIENCES
(ONE course must be a Physical Science, ONE must be a Life
Science and ONE must include a lab)
☐ (See Major)
☐ (See Major)
☐ (See Major)
☐ Lab (See Major)

PHYSICAL EDUCATION
☐ PEDC

Students interested in applying to schools of chiropractic, dentistry,
medicine, optometry, podiatry, and veterinary medicine must complete:
*1 year of Organic Chemistry with labs
   CHEM 0206, 0207, 0208, and 0209
*1 year of General Physics with labs
   PHYS 0101 and 0102 or 0201, 0202, 0203, and 0204
*1 semester of Calculus MATH 0140

REQUIRED MAJOR COURSES:
☐ BIOL 0101 Intro. to Cell and Molecular Biology GE
☐ BIOL 0102 Introduction to Biodiversity GE
☐ BIOL 0203 Genetics
☐ BIOL 0217 Principles of Ecology & Evolution GE
☐ BIOL 1451 Capstone

Upper Level Biology Electives (16 hours)
2 courses MUST include a Lab
☐ Upper-Level Biology electives
☐ Upper-Level Biology electives
☐ Upper-Level Biology electives
☐ Upper-Level Biology electives
☐ Upper-Level Biology electives

Other Required Courses:
☐ CHEM 0101 General Chemistry I GE
☐ CHEM 0102 General Chemistry II (GE
☐ CHEM 0206 Organic Chemistry I
☐ CHEM 0207 Organic Chemistry I Lab

Choose ONE of the following:
☐ MATH 0132 Precalculus GE
   MATH 0136 Applied Calculus GE
   MATH 0140 Calculus I GE

Choose ONE of the following:
☐ PHYS 0101 Introduction to Physics I GE
   PHYS 0103 Concepts of Modern Physics GE
   PHYS 0201 Foundations of Physics I GE

* MATH 0098 does not meet the mathematics competency
   At the Pittsburgh campus

According to your Degree Progress Report in
MY.PITT.EDU upon successful completion of
the current term:
You will have EARNED _________ credit hours
You NEED _________ for 120 credit hours required for graduation.
You will have earned _________ credit hours of Upper Level course work.
You NEED _______ for the 30 credit hours required for graduation.

NOTE: This guide is unofficial. Completing the requirements on this
sheet does NOT guarantee degree completion. Official degree
completion information can be found in MY.PITT.EDU. Contact
your Faculty Advisor and/or the Registrar’s Office with questions or
concerns.